

IN THE CLAIMS:

Please **amend claims 1, 2, and 12** as follows:

1. (Currently amended) A method of dynamic rate allocation performed at a node of a network, comprising allocating, to each connection converging on the node of said network and following a rate request periodically determined by a source corresponding to the connection, a cell rate that is either equal to said rate request or equal to a rate not claimed by the sources which are allocated a rate corresponding to their requests and shared between all the remaining sources,

allocating said rate during consecutive cycles by

(a) at the beginning of each cycle receiving requests from said sources corresponding to said connections, considering [[a]] an assigned rate (R_l , R_i) ~~which is termed the assigned rate~~, and assigning the assigned rate to each of said connections, and

(b) during the cycle, allocating

(b1) the assigned rate (R_l , R_i), to each connection having a required rate (R_q) exceeding the assigned rate (R_l , R_i), said connections having the assigned rate (R_l , R_i) allocated to them being accounted (m) and marked as a clipped connection

(b2) to each connection having a required rate (R_q) less than the assigned rate (R_l, R_i), either (i) the rate already allocated during the preceding cycle if during that preceding cycle said connection was not marked as a clipped connection, or (ii) the required rate (R_q) if during the preceding cycle said connection was marked as a clipped connection, the differential of the assigned rate value and the allocated rate value then being accounted as an unallocated rate value (Δ),

(c) and determining a new assigned rate value (R_l, R_i) for the next cycle in accordance with

$$R_l = R_l + \frac{(C - NR_l) + \Delta}{m}$$

where C is the rate value at the maximum bandwidth of an output link of said node, N is the number of active connections on said node, Δ is the unallocated rate and m is the number of clipped connections.

2. (Currently amended) The method as claimed in claim 1, further including during an initial cycle assigning each of said sources a rate corresponding to an equal share between all sources of the maximum bandwidth and offered by the node's output link $R_l = C/N$, ~~where C is rate of the maximum bandwidth offered by the said~~

~~node's output link and N is the number of active connections at said node.~~

3. (Previously presented) The method of claim 1 wherein the period of each cycle is larger than a renegotiation period performed by apparatus of said network.

4. (Previously presented) The method of claim 1 wherein the period of each cycle is larger than a renegotiation period performed by apparatus of said network increased by a maximum time duration taken respectively by resources managing cells RM of said connections to travel completely from the particular source to the other network end and back to said source.

5. (Previously presented) The method of claim 1 further including counting requests from each of the sources and checking only the requests bearing identical serial numbers.

6. (Previously presented) The method of claim 1 further including marking a connection after the request from the corresponding source has been received and cancelling said mark at the beginning of each cycle, and preventing checking of requests from sources having already marked connections.

7. (Previously presented) The method of claim 1 further including weighting the rates respectively assigned to the sources.

8. (*Previously presented*) The method of claim 7 wherein each weighting factor depends on an assured minimum rate requested by the corresponding source.

9. (*Previously presented*) The method of claim 8 wherein the weighting factor of a source equals the assured minimum rate requested by said source divided by the sum of the assured minimum rates requested by all sources.

10. (*Previously presented*) The method of claim 9 wherein the rate assigned to a source equals the total rate value assigned to all sources multiplied by said weighting factors, said total rate value being in accordance with

$$R = R + \frac{(C - R + \Delta)}{\sum_{clipped} DMG_i}$$

where Δ is the unallocated rate, and

$\sum_{clipped} DMG_i$ represents the sum of the weighting factors of only the clipped connections.

11. (*Previously presented*) The method of claim 1 further including interrupting the cycle in progress and starting a new cycle in response to reception of the request from a source of which the connection was not marked during the previous cycle as

being a clipped connection and when the presently required rate is larger than the rate that had been allocated to the previous cycle; said method interrupting the cycle in progress and starting a new cycle, the rate assigned to each source being the higher rate of the present rate of the particular connection and the value of the rate equitably distributed between all sources.

12. (*Currently amended*) The method of claim **[[13]] 3** further comprising preserving a number denoting the present cycle in the context of each connection.